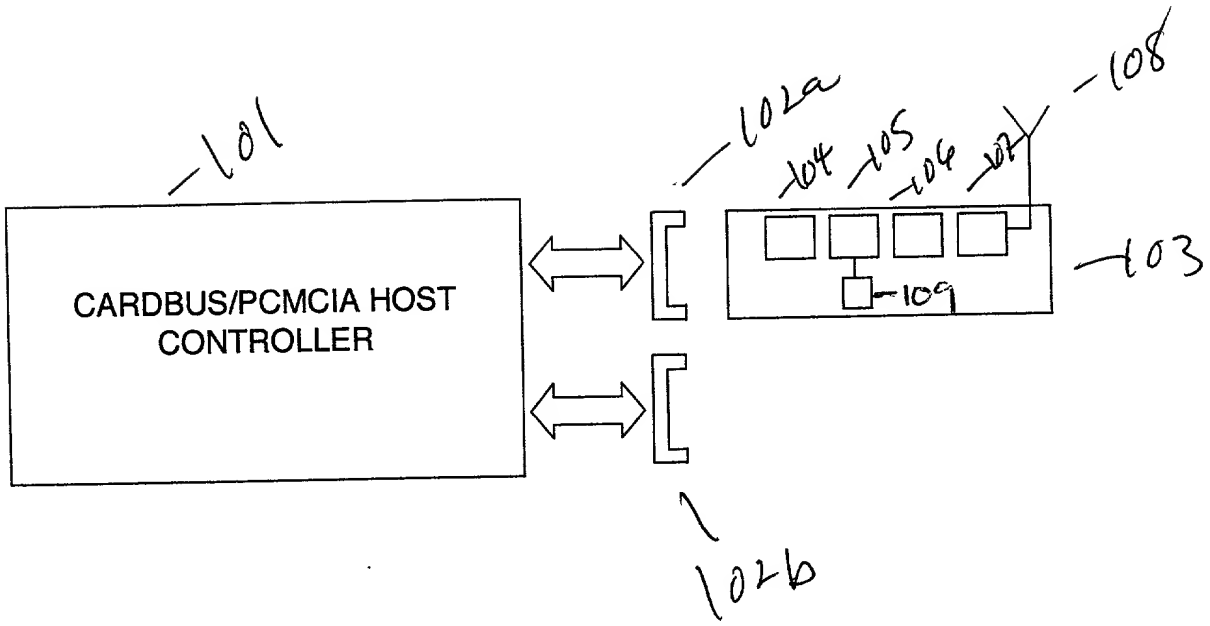

Figure 1

(prior art)

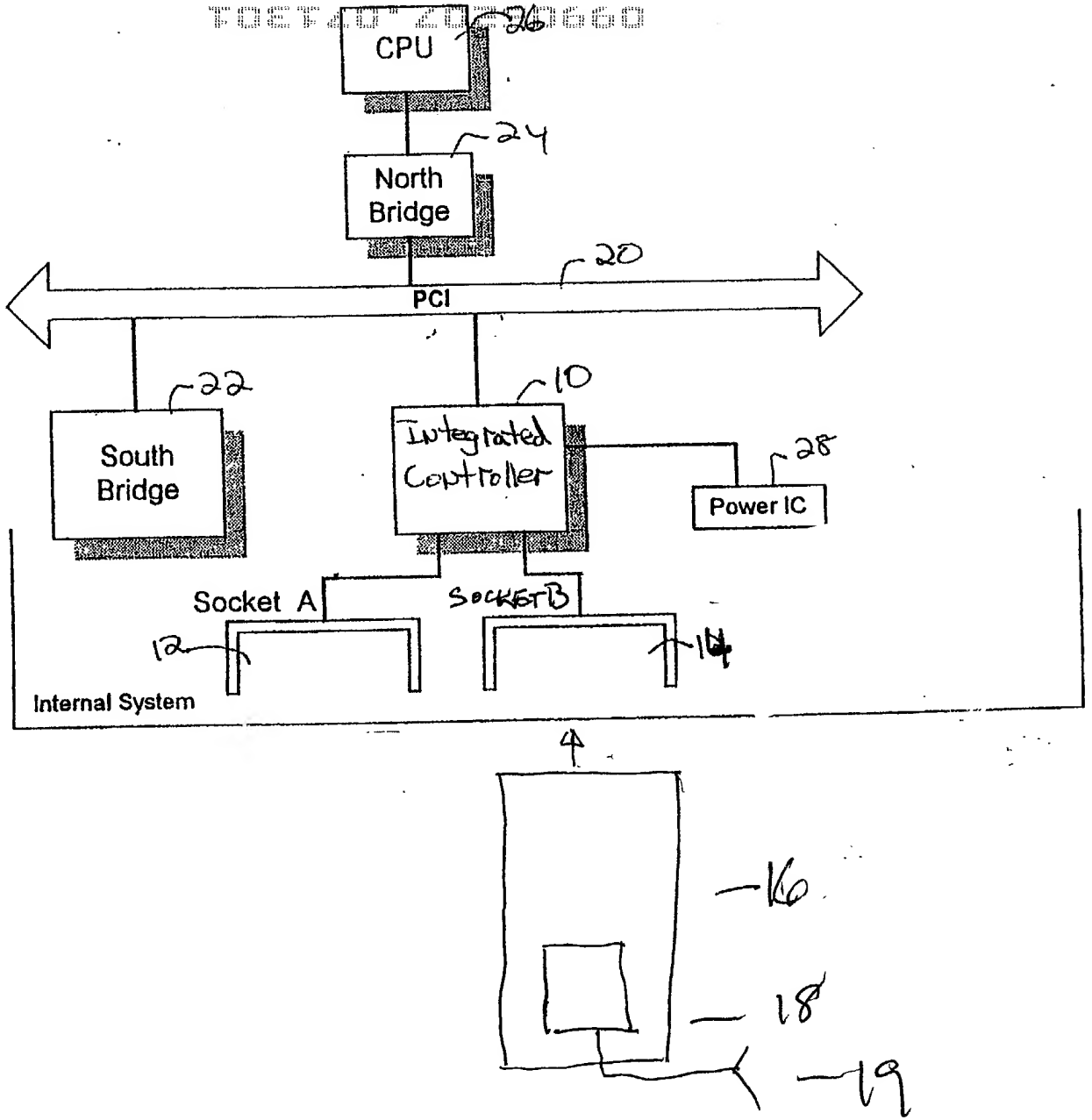
CPU
26
24
North Bridge
20
PCI
22
South Bridge
10
Integrated Controller
28
Power IC
Socket A
SOCKET B
12
14
Internal System
4
16
18
19

Figure 2

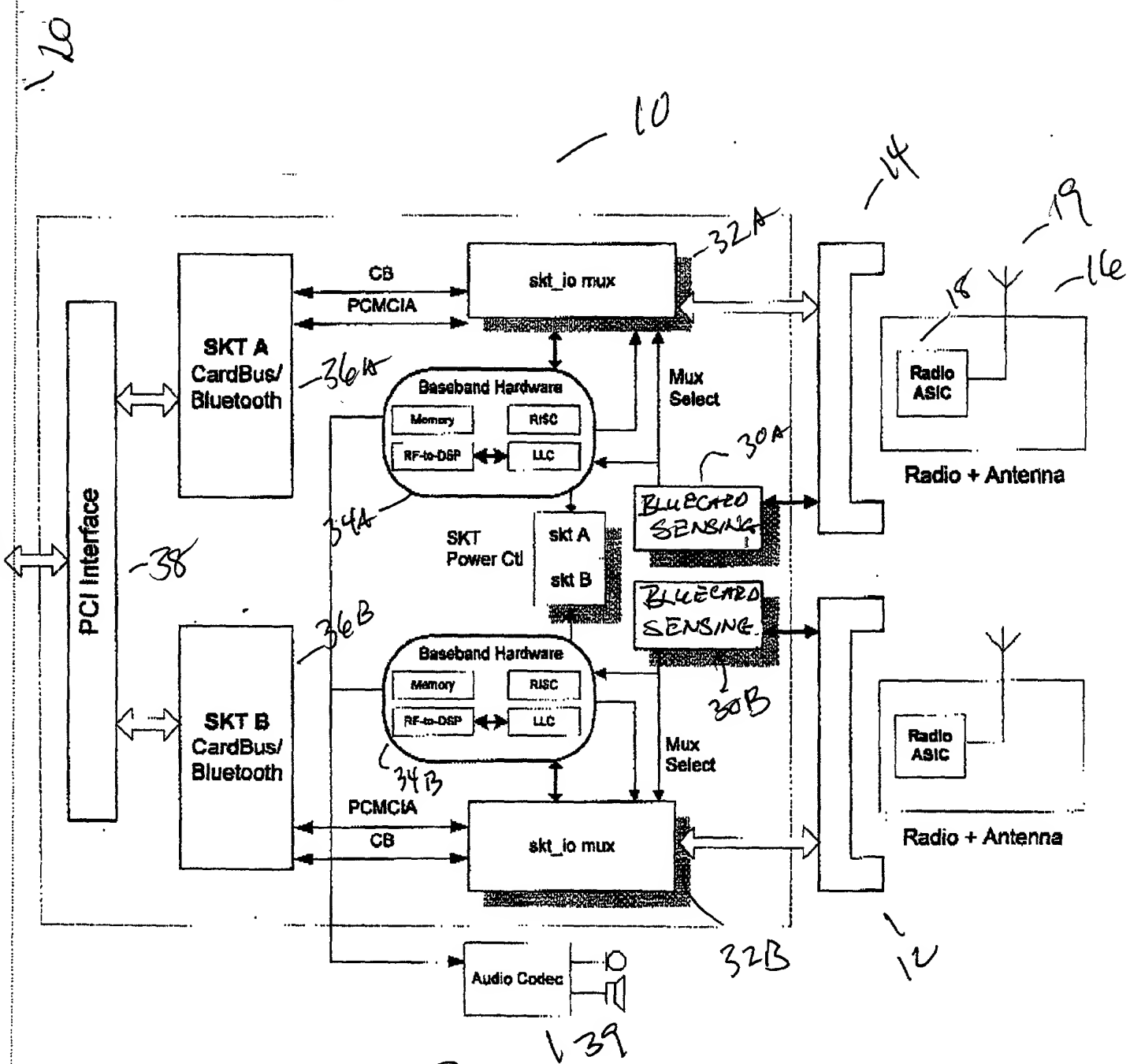
10
20
14
19
16
18
32A
CB
PCMCIA
skt_io mux
SKT A
CardBus/
Bluetooth
36A
Baseband Hardware
Memory
RISC
RF-to-DSP
LLC
Mux
Select
30A
Radio
ASIC
Radio + Antenna
34A
SKT
Power Ctl
skt A
skt B
BLUECARD
SENSING
PCI Interface
38
PCI BUS
36B
SKT B
CardBus/
Bluetooth
30B
34B
PCMCIA
CB
skt_io mux
32B
12
Audio Codec
39

Figure 3

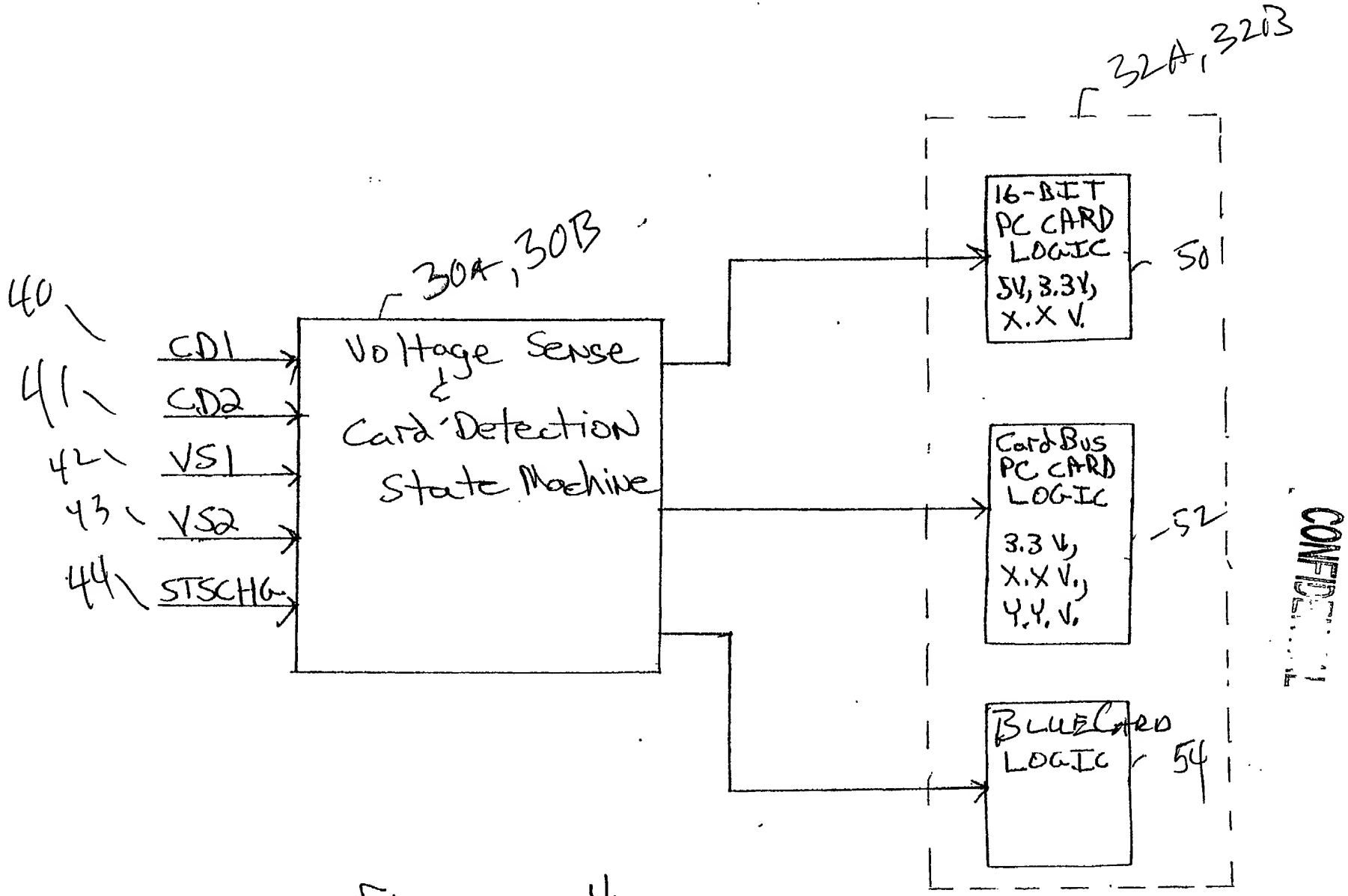

Figure 4

CONFIDENTIAL

CD2#/CCD2# (pin 67)	CD1#/CCD1# (pin 36)	VS2#/CVS2 (pin 57)	VS1#/CVS1 (pin 43)	Card Type		
				Key	Interface	Voltage
ground	ground	open	open	5V	16-bit PC Card	5 V
ground	ground	open	ground	5V	16-bit PC Card	5 V and 3.3 V
ground	ground	ground	ground	5V	16-bit PC Card	5 V, 3.3 V and X.X V
ground	ground	open	ground	LV	16-bit PC Card	3.3 V
ground	connect to CVS1	open	connect to CCD1#	LV	CardBus PC Card	3.3 V
ground	ground	ground	ground	LV	16-bit PC Card	3.3 V and X.X V
connect to CVS2	ground	connect to CCD2#	ground	LV	CardBus PC Card	3.3 V and X.X V
connect to CVS1	ground	ground	connect to CCD2#	LV	Cardbus PC Card	3.3 V, X.X V and Y.Y V
ground	ground	ground	open	LV	16-bit PC Card	X.X V
connect to CVS2	ground	connect to CCD2#	open	LV	CardBus PC Card	X.X V
ground	connect to CVS2	connect to CCD1#	open	LV	CardBus PC Card	X.X V and Y.Y V
connect to CVS1	ground	open	connect to CCD2#	LV	CardBus PC Card	Y.Y V
ground	connect to CVS1	ground	connect to CCD1#	reserved		
ground	connect to CVS2	connect to CCD1#	ground	reserved		

Figure 5

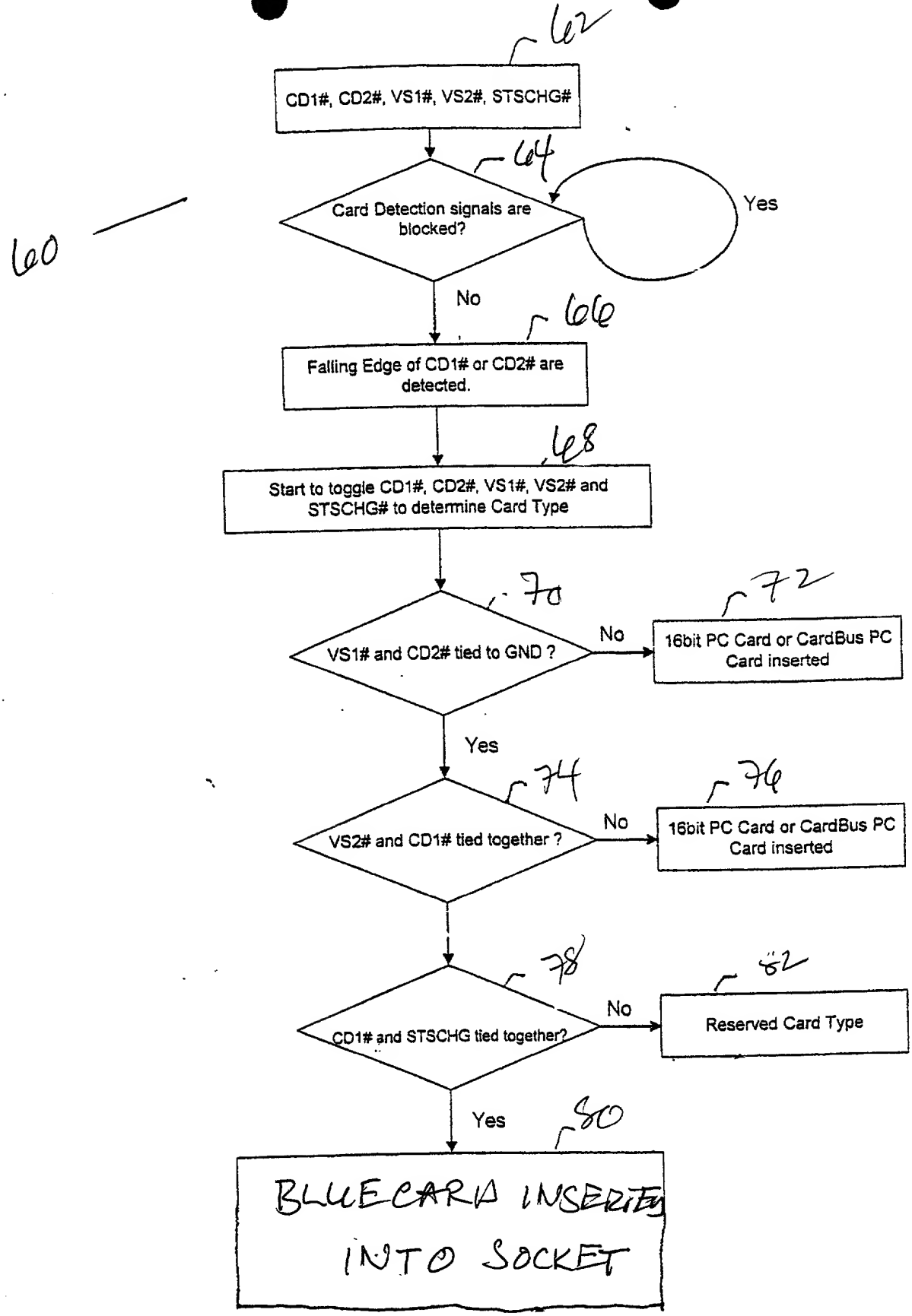
60
62
CD1#, CD2#, VS1#, VS2#, STSCHG#
64
Card Detection signals are blocked?
Yes
No
66
Falling Edge of CD1# or CD2# are detected.
68
Start to toggle CD1#, CD2#, VS1#, VS2# and STSCHG# to determine Card Type
70
VS1# and CD2# tied to GND ?
No
72
16bit PC Card or CardBus PC Card inserted
Yes
74
VS2# and CD1# tied together ?
No
76
16bit PC Card or CardBus PC Card inserted
78
CD1# and STSCHG tied together?
No
82
Reserved Card Type
Yes
80
BLUECARD INSERTED INTO SOCKET

Figure 6

Figure 7A

BLUECARD interface signals

PCMCIA PIN	Legacy Devices: 16-bit PC Card Signal	16-bit PC Card I/O	CardBus PC Card Signal	CardBus PC Card I/O	BLUECARD Signal	BLUECARD I/O
17, 51	VCC		VCC		VCC	
58	RESET	O	CRST#	O	RESET	O
47	A18	O	Reserved		CLOCK	O
32	D2	I/O	Reserved		Rvd_C4	O
	GND		GND		GND	
18	VPP1		VPP1		VPP	
16	IREQ#	I	CINT#	I	I/O	I/O
40	D14	I/O	Reserved		Rvd_C8	O

BLUECARD Detection Signals

PCMCIA PIN	16-bit PC Card Signal	16-bit PC Card I/O	CardBus PC Card Signal	CardBus PC Card I/O	BLUECARD Signal	BLUECARD I/O
63	STSCHG#	I	CSTSCHG	I	BLUECARD	I
36	CD1#	I	CCD1#	I	CD1#	I
43	VS1#	I	CVS1#	I/O	VS1#	I/O
57	VS2#	I	CVS2#	I/O	VS2#	I/O
67	CD2#	I	CCD2#	I	CD2#	I

Figure 7B